



Tennessee Department of Environment and Conservation  
Division of Water Pollution Control  
Enforcement and Compliance Section  
L&C Annex, 6<sup>th</sup> Floor, 401 Church Street  
Nashville, TN 37243  
(615) 532-0625

JHD  
JHH  
AMY  
WEC  
MSB 4/23/13

Small Municipal Separate Storm Sewer System (MS4) Annual Report

1. MS4 INFORMATION

Bradley County

Name of MS4

Sandra Knight PE

Name of Contact Person

423-728-7107

Telephone (including area code)

P.O. Box 1167

Mailing Address

Cleveland

TN

37364-1167

City

State

ZIP code

What is the current population of your MS4? 28,839

What is the reporting period for this annual report? From 07/01/2011 to 06/30/2012

2. PROTECTION OF STATE OR FEDERALLY LISTED SPECIES

A. Are any of the MS4 discharges or discharge-related activities likely to jeopardize any state or federally listed species (**Part 3, Special Conditions, General Permit for Phase II MS4s**) ☐ Yes ☒ No

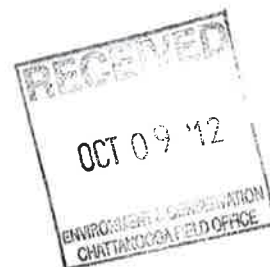
B. Please attach the determination of the effect of the MS4 discharges on state or federally listed species per sub-part 3.2.1

3. WATER QUALITY PRIORITIES

A. Does your MS4 discharge to waters listed as impaired on the state 303(d) list? ☒ Yes ☐ No

B. If yes, identify each impaired water, the impairment cause(s), whether a TMDL has been approved by EPA for each, and whether the TMDL identifies your MS4 as a source of the impairment.

| Waterbody I.D. #                      | Cause/TMDL Priority   | Approved TMDL                           |                             | MS4 Assigned to WLA          |  |
|---------------------------------------|---|---|-----------------------------|------------------------------|--|
| TN06020002005-0100<br>Black Fox Creek | Loss of biological integrity due to siltation, habitat loss due to alteration in stream-side or littoral vegetative cover, Escherichia coli   | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| TN06020002005-2000<br>Candies Creek   | Physical Substrate Habitat Alterations, loss of biological integrity due to siltation, habitat loss due to alteration in stream side or littoral vegetative cover, escherichia coli | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |



## Small Municipal Separate Storm Sewer System (MS4) Annual Report

|  |  |   |  |                              |  |
|--|--|---|--|------------------------------|--|
| TN06020002009-0300<br>Little South Mouse Creek | Alteration in stream-side or littoral vegetative cover, loss of biological integrity due to siltation                        | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| TN06020002009-0200<br>Fillauer Creek           |  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| TN06020002009-0300<br>Woolen Mill Branch       | Low dissolved oxygen, habitat loss due to alteration in streamside or littoral vegetative cover, nutrients, Escherichia coli | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| TN06020002009-2000<br>South Mouse Creek        | Loss of biological integrity due to siltation, physical substrate habitat alterations, Escherichia coli                      | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| TN06020002012-1000<br>Chatata Creek            | Loss of biological integrity due to siltation, physical substrate habitat alterations, Escherichia coli                      | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| TN03150101021-1000<br>Coahulla Creek           | Escherichia coli   | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

C. What specific sources of these pollutants of concern are you targeting? Pasture grazing and discharges from MS4

D. Do you have discharges to any Exceptional TN Waters (ETWs) or Outstanding National Resource Waters (ONRWs)? ☒ Yes ☐ No

E. Are you implementing additional specific provisions to ensure the continued integrity of ETWs or ONRWS located within your jurisdiction? ☒ Yes ☐ No

#### 4. PUBLIC EDUCATION AND PUBLIC PARTICIPATION

A. Is your public education program targeting specific pollutants and sources of those pollutants? ☒ Yes ☐ No

B. If yes, what are the specific causes, sources and/or pollutants addressed by your public education program? Trash, recycleables, tires, grazing, grading

C. Note specific successful outcome(s) (NOT tasks, events, publications) fully or partially attributable to your public education program during this reporting period. Very successful stream clean-up event, educational materials handed out at several schools

D. Do you have an advisory committee or other body comprised of the public and other stakeholders that provides regular input on your stormwater program? ☒ Yes ☐ No

E. Provide a summary of all public meetings required by the permit. See attachedcd

#### 5. CODES AND ORDINANCES REVIEW AND UPDATE

A. Is a completed copy of the EPA Water Quality Scorecard submitted with this report? ☒ Yes ☐ No

B. Include status of implementation of code, ordinance and/or policy revisions associated with permanent stormwater management. Policy in place and updated as needed.

#### 6. CONSTRUCTION

A. Do you have an ordinance or adopted policies stipulating:  
Erosion and sediment control requirements? ☒ Yes ☐ No

Other construction waste control requirements? ☒ Yes ☐ No

Requirement to submit construction plans for review? ☒ Yes ☐ No

## Small Municipal Separate Storm Sewer System (MS4) Annual Report

MS4 enforcement authority?

☒ Yes

☐ No

B. How many active construction sites disturbing at least one acre were there in your jurisdiction this reporting period? 20

C. How many of these active sites did you inspect this reporting period? 20

D. On average, how many times each, or with what frequency, were these sites inspected (e.g., weekly, monthly, etc.)? Bimonthly

E. Do you prioritize certain construction sites for more frequent inspections?

☒ Yes

☐ No

If Yes, based on what criteria? Proximity to listed waters, proximity to other development

### 7. ILLICIT DISCHARGE ELIMINATION

A. Have you completed a map of all outfalls and receiving waters of your storm sewer system?

☒ Yes

☐ No

B. Have you completed a map of all storm drain pipes of storm sewer system?

☒ Yes

☐ No

C. How many outfalls have you identified in your system? 9063

D. How many of these outfalls have been screened for dry weather discharges? 75%

E. How many of these have been screened more than once? 10%

F. What is your frequency for screening outfalls for illicit discharges? Once every 5 years and on complaints

G. Do you have an ordinance that effectively prohibits illicit discharges?

☒ Yes

☐ No

H. During this reporting period, how many illicit discharges/illegal connections have you discovered (or been reported to you)? 10

I. Of those illicit discharges/illegal connections that have been discovered or reported, how many have been eliminated? 10

### 8. STORMWATER MANAGEMENT FOR MUNICIPAL OPERATIONS

A. Have stormwater pollution prevention plans (or an equivalent plan) been developed for:

All parks, ball fields and other recreational facilities

☒ Yes

☐ No

All municipal turf grass/landscape management activities

☒ Yes

☐ No

All municipal vehicle fueling, operation and maintenance activities

☒ Yes

☐ No

All municipal maintenance yards

☒ Yes

☐ No

All municipal waste handling and disposal areas

☒ Yes

☐ No

B. Are stormwater inspections conducted at these facilities?

☒ Yes

☐ No

1. If Yes, at what frequency are inspections conducted? Yearly

C. Have standard operating procedures or BMPs been developed for all MS4 field activities? (e.g., road repairs, catch basin cleaning, landscape management, etc.)

☒ Yes

☐ No

D. Do you have a prioritization system for storm sewer system and permanent BMP inspections?

☒ Yes

☐ No

E. On average, how frequently are catch basins and other inline treatment systems inspected? Yearly

F. On average, how frequently are catch basins and other inline treatment systems cleaned out/maintained? Yearly or per complaint

G. Do municipal employees in all relevant positions and departments receive comprehensive training on stormwater management?

☒ Yes

☐ No

H. If yes, do you also provide regular updates and refreshers?

☒ Yes

☐ No

If so, how frequently and/or under what circumstances?

Bi-annually in conjunction with safety meetings

### 9. PERMANENT STORMWATER CONTROLS

A. Do you have an ordinance or other mechanism to require:

Site plan reviews of all new and re-development projects?

☒ Yes

☐ No

Maintenance of stormwater management controls?

☒ Yes

☐ No

## Small Municipal Separate Storm Sewer System (MS4) Annual Report

Retrofitting of existing BMPs with green infrastructure BMPs? ☐ Yes ☒ No

B. What is the threshold for new/redevelopment stormwater plan review? (e.g., all projects, projects disturbing greater than one acre, etc.) All projects

C. Have you implemented and enforced performance standards for permanent stormwater controls? ☒ Yes ☒ No

D. Do these performance standards go beyond the requirements found in paragraph 4.2.5.2 and require that pre-development hydrology be met for:

Flow volumes ☐ Yes ☒ No

Peak discharge rates ☐ Yes ☒ No

Discharge frequency ☐ Yes ☒ No

Flow duration ☐ Yes ☒ No

E. Please provide the URL/reference where all permanent stormwater management standards can be found.

www.bradleyco.net/stormwater

F. How many development and redevelopment project plans were reviewed for this reporting period? 432

G. How many development and redevelopment project plans were approved? 432

H. How many permanent stormwater management practices/facilities were inspected? 432

I. How many were found to have inadequate maintenance? 8

J. Of those, how many were notified and remedied within 30 days? (If window is different than 30 days, please specify) 5

K. How many enforcement actions were taken that address inadequate maintenance? 2

L. Do you use an electronic tool (e.g., GIS, database, spreadsheet) to track post-construction BMPs, inspections and maintenance? ☒ Yes ☐ No

M. Do all municipal departments and/or staff (as relevant) have access to this tracking system? ☒ Yes ☐ No

N. Has the MS4 developed a program to allow for incentive standards for redeveloped sites? ☐ Yes ☒ No

O. How many maintenance agreements has the MS4 approved during the reporting period? 0

### 10. ENFORCEMENT

A. Identify which of the following types of enforcement actions you used during the reporting period, indicate the number of actions, the minimum measure (e.g., construction, illicit discharge, permanent stormwater control) or note those for which you do not have authority:

| Action                                      | Construction  | Permanent Stormwater Controls | Illicit Discharge | Authority?  |
|---|---------------|-------------------------------|-------------------|---|
| Notice of violation                         | # <u>10</u>   | # <u>    </u>                 | # <u>10</u>       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Administrative fines                        | # <u>    </u> | # <u>1</u>                    | # <u>1</u>        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Stop Work Orders                            | # <u>4</u>    | # <u>    </u>                 | # <u>    </u>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Civil penalties                             | # <u>4</u>    | # <u>    </u>                 | # <u>1</u>        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Criminal actions                            | # <u>    </u> | # <u>    </u>                 | # <u>    </u>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Administrative orders                       | # <u>    </u> | # <u>    </u>                 | # <u>    </u>     | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Other <u>Turned over to Road Department</u> | # <u>    </u> | # <u>    </u>                 | # <u>18</u>       |   |

## Small Municipal Separate Storm Sewer System (MS4) Annual Report

- B. Do you use an electronic tool (e.g., GIS, data base, spreadsheet) to track the locations, inspection results, and enforcement actions in your jurisdiction? ☒ Yes ☐ No
- C. What are the 3 most common types of violations documented during this reporting period? Illicit discharge, inadequate entrance and silt fence

### 11. PROGRAM RESOURCES

- A. What was your annual expenditure to implement the requirements of your MS4 NPDES permit and SWMP this past reporting period? \$221,582
- B. What is next year's budget for implementing the requirements of your MS4 NPDES permit and SWMP? \$227,131
- C. Do you have an independent financing mechanism for your stormwater program? ☐ Yes ☒ No
- D. If so, what is it/are they (e.g., stormwater fees), and what is the annual revenue derived from this mechanism?  
Source: \_\_\_\_\_ Amount \$ \_\_\_\_\_  
Source: \_\_\_\_\_ Amount \$ \_\_\_\_\_
- E. How many full time employees does your municipality devote to the stormwater program (specifically for implementing the stormwater program vs. municipal employees with other primary responsibilities that dovetail with stormwater issues)? 3
- F. Do you share program implementation responsibilities with any other entities? ☐ Yes ☒ No

| Entity | Activity/Task/Responsibility | Your Oversight/Accountability Mechanism |
|--------|------------------------------|---|
|        |                              |   |
|        |                              |   |
|        |                              |   |

### 12. EVALUATING/MEASURING PROGRESS

- A. What indicators do you use to evaluate the overall effectiveness of your Stormwater Management Program, how long have you been tracking them, and at what frequency? Note that these are not measurable goals for individual BMPs or tasks, but large-scale or long-term metrics for the overall program, such as in-stream macroinvertebrate community indices, measures of effective impervious cover in the watershed, indicators of in-stream hydrologic stability, etc.

| Indicator                   | Began Tracking (year) | Frequency              | Number of Locations |
|-----------------------------|-----------------------|------------------------|---------------------|
| Example: E. coli            | 2003                  | Weekly April–September | 20                  |
| Decrease in NOV's and Fines | 2003                  | Bi-Monthly             |                     |

- B. Provide a summary of data (e.g., water quality information, performance data, modeling) collected in order to evaluate the performance of permanent stormwater controls installed throughout the system. This evaluation may include a comparison of current and past permanent stormwater control practices. \_\_\_\_\_

### 13. STORMWATER MANAGEMENT PROGRAM UPDATE

- A. Describe any changes to the MS4 program during the reporting period including but not limited to:

Changes adding (but not subtracting or replacing) components, controls or other requirements per paragraph 4.4.2.a of the permit. N/A

Changes to replace an ineffective or unfeasible BMP per paragraph 4.4.2.b of the permit. N/A

Information (e.g. additional acreage, outfalls, BMPs) on program area expansion based on annexation or newly urbanized areas. Areas added to UA by census and other areas deleted.

Changes to the program as required by the division. N/A

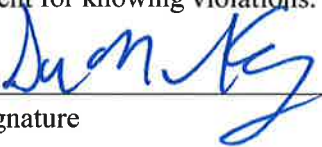
## Small Municipal Separate Storm Sewer System (MS4) Annual Report

### 14. CERTIFICATION

This report must be signed by a ranking elected official or by a duly authorized representative of that person. See signatory requirements in sub-part 6.7.2 of the permit.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Sandra Knight  
Printed Name and Title  
County Engineer

  
Signature

10-3-12  
Date

Annual reports must be submitted in accordance with the requirements of subpart 5.4. (Reporting) of the permit. Annual reports must be submitted to the appropriate Environmental Field Office (EFO) by September 30 of each calendar year, as shown in the table below:

| EFO          | Street Address              | City         | Zip Code | Telephone      |
|--------------|-----------------------------|--------------|----------|----------------|
| Chattanooga  | 540 McCallie Avenue STE 550 | Chattanooga  | 37402    | (423) 634-5745 |
| Columbia     | 1421 Hampshire Pike         | Columbia     | 38401    | (931) 380-3371 |
| Cookeville   | 1221 South Willow Ave.      | Cookeville   | 38506    | (931) 432-4015 |
| Jackson      | 1625 Hollywood Drive        | Jackson      | 38305    | (731) 512-1300 |
| Johnson City | 2305 Silverdale Road        | Johnson City | 37601    | (423) 854-5400 |
| Knoxville    | 3711 Middlebrook Pike       | Knoxville    | 37921    | (865) 594-6035 |
| Memphis      | 8383 Wolf Lake Drive        | Bartlett     | 38133    | (901) 371-3000 |
| Nashville    | 711 R S Gass Boulevard      | Nashville    | 37216    | (615) 687-7000 |